

STATEMENT OF BASIS

for draft Louisiana Pollutant Discharge Elimination System permit No. LA0120111
to discharge to waters of the State of Louisiana.

AI No.: 87858 / Activity No.: PER20090001

THE APPLICANT IS: Boyd Racing, LLC
2717 Delta Downs Drive
Vinton, LA 70668

THE FACILITY IS: Delta Downs Racetrack and Casino
2717 Delta Downs Drive
Vinton, Calcasieu Parish

ISSUING OFFICE: Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

PREPARED BY: Bonnie Wascom

DATE PREPARED: September 14, 2009

1. PERMIT STATUS

- A. LPDES permit – LA0120111
LPDES permit effective date: February 16, 2005
LPDES permit expiration date: February 15, 2010
- B. LWDPS permit – NA
LWDPS permit effective date: NA
LWDPS permit expiration date: NA
- C. Date Application Received: August 17, 2009; September 1, 2009

2. FACILITY INFORMATION

- A. **FACILITY TYPE/ACTIVITY** – facility is a horse racetrack with casino and hotel. Facility meets the LAC 33:IX.2505.B numerical definition of a Large CAFO: the number of horses confined exceeds 500 for 45 days or more during a 12 month period. However, the applicant does not report the discharge of, or intent to discharge, CAFO-related process wastewater. Per the federal guidelines (40 CFR 412.A) the discharge of CAFO production area wastewaters is prohibited. Therefore, facility is not a “regulated” CAFO in that it will not “discharge or propose to discharge” a regulated wastewater (LAC33:IX.2505.D.1).

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The application is for the discharge of non-contact stormwater and treated sanitary wastewater from privately owned treatment works serving the Delta Downs Racetrack and Casino, located near Vinton in Calcasieu Parish. Facility is owned by Boyd Gaming since its purchase on May 31, 2001.

The Delta Downs site is approximately 230 acres in size, with 20 sixty-stall barns located on approximately 60 acres in the south and west portions of the property. Maximum capacity for the facility is 1,200 horses.

Waste management facilities are located in the barn areas. Horse manure and bedding materials are contained in 56 waste management bins on-site; in addition, there are normally seven to eight 40 yard roll-off containers on site for the constant movement of manure and bedding materials off site to a land application facility. The containers are located in proximity to each barn and feature a concrete floor construction with cinder block walls. Waste materials are loaded into the roll-offs 5 days per week on a more or less continuous basis, except in the "off" season when a large number of horses are not present. Sewage sludge is dewatered and hauled offsite by Wastewater Specialties and delivered to Westin Services near Leesville, LA. Westin treats the sludge and discharges water under an LPDES permit.

Best Management Practices (BMPs) are employed to protect receiving waters from pollutant discharges. The manure and bedding collection addresses solid wastes. A second BMP is the removal of erosion materials from the surface drainways in the barn areas; this removal of settled soils would also remove any manure or other materials that may have escaped the first level of management at the barns and assure that the materials do not wash off site. A third BMP consists of silt fences or hay bales at the outfall areas to act as final trap and filter mechanisms for the removal of solids and settling of materials which may have progressed to the outfall location. The use of Certified Wastewater Operators in the monitoring of the execution of the daily duties of the BMPs serves as an additional BMP.

Three separate treatment systems provide treatment for the sanitary wastewaters generated in the casino, grandstands, offices, and barn areas. The private water supply system and the domestic wastewater treatment systems are run by operators trained and certified as water and wastewater system operators.

- B. FEE RATE
1. Fee Rating Facility Type: minor
 2. Complexity Type: I
 3. Wastewater Type: III
 4. SIC code(s): 7948

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C. LOCATION - 2717 Delta Downs Drive
Vinton, Calcasieu Parish

Latitude +30° 11' 34", Longitude -93° 37' 29"

3. OUTFALL INFORMATION

RLP 1 Outfall 001

Discharge Type: treated sanitary wastewater from the office rest rooms

Treatment: oxidation pond

Location: at the outlet of the secondary cell of the two-celled oxidation pond system, interior to the track at the south side of the track, prior to mixing with other waters

Latitude 30 deg. 11 min. 32 sec., Longitude 93 deg. 37 min. 17 sec.

Flow: 2,600 GPD Average Flow

Discharge Route: by local ditches, thence to Gray Canal, thence into the Intracoastal Waterway

RLP 2 Outfall 002

Discharge Type: treated sanitary wastewater from the Satellite Bathroom/showers

Treatment: Grease/trash trap -> Extended Aeration System

Location: at the point of discharge from the treatment system near Barn 18 adjacent to the remote bathroom facility, prior to mixing with other waters

Latitude 30 deg. 11 min. 29 sec., Longitude 93 deg. 37 min. 41 sec.

Flow: 2,000 GPD Average Flow

Discharge Route: by local ditches, thence to Gray Canal, thence into the Intracoastal Waterway

RLP 3 Outfall 003

Discharge Type: treated sanitary wastewater from the Racetrack and Hotel

Treatment: Grease traps/screens to a Contact Stabilization Process which includes aeration, clarification, filtration, and chlorination

Location: at the point of discharge from the WWTP located at the southeast corner of the facility by the service entrance, prior to mixing with other waters

Latitude 30 deg. 11 min. 27 sec., Longitude 93 deg. 37 min. 07 sec.

Expected Flow:	1,462 gaming positions x 100 gpd each =	0.1462 MGD
	480 grandstand capacity x 5 gpd/seat =	0.0024 MGD
	1200 employees x 20 gpd/person =	0.0240 MGD
	208 hotel rooms x 100 gpd/room =	0.0208 MGD
	208 hotel rooms x 45 gpd/rm Hotel Food Svc =	0.00936 MGD
	650 buffet/food court seats x 35 gpd/seat =	<u>0.02275 MGD</u>

Total Expected Flow: 0.22551 MGD

Discharge Route: by unnamed ditches, thence into a parish drainage canal, thence into Gum Gulley, thence to the Intracoastal Waterway

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RLP 4 Outfall 004

Discharge Type: non-contact stormwater runoff from the East Barn area (15.7 acres)
Treatment: BMPS
Location: at the point of discharge into local drainage near the Southeast fringe of the Barn Area, just south of the Service Entrance Road, prior to mixing with other waters
Latitude 30 deg. 11 min. 26 sec., Longitude 93 deg. 37 min. 14 sec.
Flow: Variable
Discharge Route: by local ditches, thence into Gray Canal, thence into the Intracoastal Waterway

RLP 5 Outfall 005

Discharge Type: non-contact stormwater runoff from the West Production Area (42.39 acres)
Treatment: BMPs
Location: at the point of discharge into local drainage near the Southwest fringe of the Barn Area, prior to mixing with other waters
Latitude 30 deg. 11 min. 25 sec., Longitude 93 deg. 37 min. 45 sec.
Flow: Variable
Discharge Route: by local ditches, thence into Gray Canal, thence into the Intracoastal Waterway

4. RECEIVING WATERS

STREAM – Outfalls flow ultimately into the Intracoastal Waterway in segment 110601 of the Sabine River Basin.

BASIN AND SEGMENT – Sabine River Basin – Subsegment 110601 (Estuarine)

DESIGNATED USES -

- a. Primary contact recreation
- b. Secondary contact recreation
- c. Propagation of fish and wildlife

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5. EXISTING EFFLUENT LIMITS

Outfall 001 – treated sanitary wastewater

Parameter	Limitation Mo. Avg.: Wkly Avg.	Monitoring Frequency
Flow	Report : Report (MGD)	1/month
Fecal Coliform	200: 400 col./100 mL	1/3months
BOD	30: 45 mg/L	1/3months
TSS	30: 45 mg/L	1/3months
pH	6.0 – 9.0 s.u.	1/3months

Outfall 002 – treated sanitary wastewater

Parameter	Limitation Mo. Avg.: Wkly Avg.	Monitoring Frequency
Flow	Report : Report (MGD)	1/month
Fecal Coliform	200: 400 col./100 mL	1/3months
BOD	30: 45 mg/L	1/3months
TSS	30: 45 mg/L	1/3months
pH	6.0 – 9.0 s.u.	1/3months

Outfall 003 – treated sanitary wastewater

Parameter	Limitation Mo Avg.: Mo. Avg.: Wkly Avg.	Monitoring Frequency
Flow	Report : Report (MGD)	2/Month
Fecal Coliform	---: 200: 400 col./100 mL	2/Month
BOD	20 lbs/day: 10: 15 mg/L	2/Month
TSS	30 lbs/day: 15: 23 mg/L	2/Month
pH	6.0 – 9.0 s.u.	2/Month
Oil and Grease	---: ---: 15 mg/l	2/Month

6. PROPOSED EFFLUENT LIMITS

BASIS – See rationale below.

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7. COMPLIANCE HISTORY/COMMENTS

A. Compliance History

A Water Compliance Evaluation Inspection conducted May 9, 2008 found the facility operating under an LPDES permit issued effective February 16, 2005, for three sanitary wastewater outfalls. Facility records indicated that problems were corrected when they arose. Application for a CAFO permit had been submitted February 24, 2006.

There are no open, appealed, or pending OES enforcement actions as of September 9, 2009. There is no EPA enforcement history on file as of September 9, 2009.

B. DMR Review/Excursions

For the period January 1, 2006 through March 1, 2009, all required testing was performed and DMRs submitted (a total of 39 months). DMR compilation sheets are attached.

Reported Exceedances			
Outfall (#Sampling Events)	Parameter	Limit	# Exceedances
001 (7)	Fecal coliform, Mo Avg	200 col./100 ml	2
	Fecal coliform, Wkly Avg	400 col./100 ml	1
	TSS, Mo Avg	30 mg/L	7
	TSS, Wkly Avg	45 mg/L	4
	BOD5	30-45	0-0
	pH	6-9 s.u.	2
002 (12)	Fecal coliform, Mo Avg	200 col./100 ml	2
	Fecal coliform, Wkly Avg	400 col./100 ml	2
	TSS, Mo Avg	30 mg/L	3
	TSS, Wkly Avg	45 mg/L	2
	BOD5, Mo Avg	30	1
003 (39)	Fecal coliform, Mo Avg	200 col./100 ml	1
	Fecal coliform, Wkly Avg	400 col./100 ml	2
	BOD, Mo Avg	10 mg/L	1
	TSS, Wkly Avg	23 mg/L	1
	BOD5, Wkly Avg	15 mg/L	1
	pH	6-9 s.u.	2
	Oil and Grease, Wkly Avg	15 mg/L	0

8. ENDANGERED SPECIES

The receiving waterbodies and proposed discharge are not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

9. 303 (d) LISTED WATERBODIES

Subsegment 110601, Vinton Waterway, From Vinton to ICWW (Estuarine), is not listed on LDEQ's Final 2006 303(d) list as impaired. However, subsegment 110601 was previously listed as impaired for turbidity, for which the below TMDL's have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL's have been established for subsegment 110601:

Turbidity

For this TMDL, the WLAs for the point sources were set to zero because the surrogate being used for turbidity (TSS) is considered to represent inorganic suspended solids (i.e., soil and sediment particles from erosion or sediment re-suspension). The suspended solids discharged by point sources in subsegment 110601 are assumed to consist primarily of organic solids rather than inorganic solids. Discharges of organic suspended solids from point sources are already addressed by LDEQ through their permitting of point sources to maintain water quality standards for DO. The WLAs to support this turbidity TMDL will not require any changes to the permits concerning organic suspended solids. However, the permit established TSS limitations for sanitary wastewater and SWPPP for the stormwater discharge. Therefore, the discharge should not cause or contribute to the turbidity impairment.

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10. HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

11. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application.

12. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

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Rationale for Facility

RLP 1 Outfall 001 – treated sanitary wastewater from the office rest rooms

<u>Parameter</u>	<u>Limitation*</u>	<u>Reference</u>
	Mo. Avg.: Daily Max.	
Flow (GPD)	Report: Report	LAC 33:IX.2361.I.1.b
BOD5	30:45 mg/L	Similar discharges (BPJ)
TSS	90:135 mg/L	Similar discharges (BPJ)
Fecal coliform	200:400 Col./100 mL	Similar discharges (BPJ)
pH	6.0 - 9.0 s.u.	Similar discharges (BPJ)

Treatment: oxidation pond

Monitoring Frequency: Monitoring frequencies are continued from the previous permit, standard for flows between 0.001 and 0.004 MGD: Flow Measure once per month, Limited Parameters once every 3 months.

***Limits Justification:** For all parameters, limitations are based on the prior permit and current guidance for similar discharges from other facilities. The TSS limitations were set in accordance with LAC 33:IX.711.D since an oxidation pond is used for treatment. Daily Maximum is now used for non-POTW sanitary wastewater flows per current practice. Flows do not include input from restaurant/food service.

RLP 2 Outfall 002 – treated sanitary wastewater from the Satellite Bathroom/showers

<u>Parameter</u>	<u>Limitation*</u>	<u>Reference</u>
	Mo. Avg.: Daily Max.	
Flow (GPD)	Report: Report	LAC 33:IX.2361.I.1.b
BOD5	30:45 mg/L	Similar discharges (BPJ)
TSS	30:45 mg/L	Similar discharges (BPJ)
Fecal coliform	200:400 Col./100 mL	Similar discharges (BPJ)
pH	6.0 - 9.0 s.u.	Similar discharges (BPJ)

Treatment: Grease/trash trap to Extended Aeration System

Monitoring Frequency: Monitoring frequencies are continued from the previous permit, standard for flows between 0.001 and 0.004 MGD: Flow Measure once per month, Limited Parameters once every 3 months.

***Limits Justification:** For all parameters, limitations are based on the prior permit and current guidance for similar discharges from other facilities. Daily Maximum is now used for non-POTW sanitary wastewater flows per current practice. Flows do not include input from restaurant/food service.

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RLP 3 Outfall 003 – treated sanitary wastewater from the Racetrack and Hotel

<u>Parameter</u>		<u>Limitation*</u>	<u>Reference</u>
	Mo.Avg.	Mo. Avg.: Daily Max.	
Flow (GPD)		Report: Report	LAC 33:IX.2361.I.1.b
BOD5	18.8 #/day	10:15 mg/L	Similar discharges (BPJ)
TSS	28.2 #/day	15:23 mg/L	Similar discharges (BPJ)
Fecal coliform		200:400 Col./100 mL	Similar discharges (BPJ)
Oil and Grease		---: 15 mg/L	Similar discharges (BPJ)
pH		6.0 - 9.0 s.u.	Similar discharges (BPJ)

Treatment: Grease traps/screens to a Contact Stabilization Process which includes aeration, clarification, filtration, and chlorination

Monitoring Frequency: A performance-based reduction in monitoring frequency is applied for all Limited parameters; monitoring frequency is set at once per month. Flow Measure remains Continuous by Recorder.

Limits Justification: Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size. Daily Maximum is now used for non-POTW sanitary wastewater flows per current practice.

An Oil and Grease limitation is included because effluent flow includes input from restaurant/food service.

Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Daily Maximum) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgment in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

The pH limits are established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.

Final effluent mass loadings (i.e. lb/day) have been established based upon the permit concentrations limits and the calculated flow of 0.22551 MGD.

BOD5: $8.34 \text{ lb/gal} \times 0.22551 \text{ MGD} \times 10 \text{ mg/l} = 18.8 \text{ lb/day}$
 TSS: $8.34 \text{ lb/gal} \times 0.22551 \text{ MGD} \times 15 \text{ mg/l} = 28.2 \text{ lb/day}$

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NOTE:

The usage of concentration limits is based on BPJ for similar outfalls since the flow is variable and estimated.

RLP 4 Outfall 004 – non-contact stormwater runoff from the East Barn area (15.7 acres)
and

RLP 5 Outfall 005 – non-contact stormwater runoff from the West Production Area (42.39 acres)

<u>Parameter</u>	<u>Limitation*</u> Mo. Avg.: Daily Max.	<u>Reference</u>
Flow (GPD)	Report: Report	LAC 33:IX.2707.I.1.b
Nitrogen, total	---: Report mg/L	BPJ
Phosphorus	---: Report mg/L	BPJ
Fecal coliform	---: Report Col./100 mL	BPJ
pH	6.0 – 9.0 s.u.	Similar Discharges (BPJ)

Treatment: Best Management Practices

Monitoring Frequency: Monitoring frequencies are set at 1/3 months for all parameters.

***Limits Justification:** pH is limited per BPJ for stormwater discharges. For all other parameters, analysis and reporting are applied to provide data for use in evaluation of the facility's measures to prevent release of materials from the animal handling activities at the facility.

Stormwater pollution measures will be required through preparation and implementation of a Stormwater Pollution Prevention Plan (SWP3), as is standard for industrial facilities.

All Facility Outfalls: In accordance with 40 CFR 412 Subpart A, there shall be no discharge of process wastewater pollutants from the production areas at the CAFO operation to surface waters except in accordance with the 25-year, 24-hour rainfall event overflow provision defined in 40 CFR 412.13(b). All definitions in 40 CFR 412.2 are applicable.

Additional Information: The Louisiana Department of Environmental Quality (LDEQ) reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDLs. The LDEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

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In accordance with LAC 33:IX.2903., this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b) (2) Cc) and CD); 304(b) (2); and 307(a) (2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit; or
3. Require reassessment due to change in 303(d) status of waterbody; or
4. Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

Please be aware that the Department has the authority to reduce monitoring frequencies when a permittee demonstrates two or more consecutive years of permit compliance. Monitoring frequencies established in LPDES permits are based on a number of factors, including but not limited to, the size of the discharge, the type of wastewater being discharged, the specific operations at the facility, past compliance history, similar facilities and best professional judgment of the reviewer. We encourage and invite each permittee to institute positive measures to ensure continued compliance with the LPDES permit, thereby qualifying for reduced monitoring frequencies upon permit reissuance. If the Department can be of any assistance in this area, please do not hesitate to contact us. As a reminder, the Department will also consider an increase in monitoring frequency upon permit reissuance when the permittee demonstrates continued non-compliance.

BPJ Best Professional Judgment
GPD Gallons per Day
s.u. Standard Units